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# **Arizona Electric Power Cooperative, Inc.**

**Integrated Resource Planning  
Actual Data Filing**

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## **Demand and Supply 2009**

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**Docket # E-00000H-10-0094**


**Pursuant to Rule R14-2-703 A-B  
Of the Arizona Administrative Code  
With Decision Number 60385 Modifications  
Corporation Commission – Fixed Utilities**

**Public Filing**

**March 31, 2010**

Arizona Corporation Commission  
**DOCKETED**

**APR -1 2010**

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**2009 Integrated Resource Planning Actual Data Filing**

**R14-2-703.    Utility reporting requirements**

A. Demand side data. Each utility shall provide the Commission staff the demand data in subsection (A)(1) through (9) below within 90 days of the effective date of these rules and shall provide staff with updated and revised data by April 1 of each year thereafter. If records are not maintained for any item, the utility shall provide its best estimates, such as sample survey data, application factors from one years data to another year, or other methods, and fully describe how such estimates were made.

1. Hourly demand for the previous calendar year disaggregated by:

- a. Sales to end users
- b. Sales for resale
- c. Energy losses
- d. Other disposition of energy such as energy furnished without charge and energy used by the utility.

3. Coincident peak demand (megawatts) and energy demand (megawatt hours) by month for the previous ten years disaggregated by customer class and, for nonresidential customers, if available, disaggregated by type of business.

B. Supply-side data. Each utility shall provide the Commission staff the supply data indicated in subsection (B)(1) through (4) within 90 days of the effective date of these rules and shall provide staff with updated and revised data by April 1 of each year thereafter. If records are not maintained for any item, the utility shall provide its best estimates and fully describe how those estimates were made.

1. For each generating unit and purchased power contract for the previous calendar year:

- a. In-service date
- b. Book life or contract period
- c. Capacity in megawatts (utility share)
- d. Maximum unit or contract capacity by hour, or month, if such capacity varies over the year
- e. Forced outage rate (generating units only)
- f. Average heat rate of generating units and, if available, heat rates at selected output levels
- g. Fuel cost for generating units in dollars per million Btu for each type of fuel,
- h. Other variable operating and maintenance costs for units in dollars per megawatt hour
- i. Purchased power energy costs for contract purchases in dollars per megawatt hour
- j. Fixed operating and maintenance costs of generating units in dollars per megawatt for the year
- k. Demand charges for purchased power

## **2009 Integrated Resource Planning Actual Data Filing**

- l. Fuel types for generating units
  - m. Minimum capacity at which the unit would be run or power must be purchased
  - n. Whether, under standard operating procedures, the generating unit must be run if it is available to run
  - o. Maintenance schedules for generating units
  - p. Other data related to generation units and purchased power contracts which the utility uses in its production, planning and supply models
2. For the power supply system for the previous calendar year:
- a. A description of unit commitment procedures
  - b. Production cost
  - c. Reserve requirements
  - d. Spinning reserves
  - e. Reliability of generation, transmission and distribution systems
  - f. Interchange purchase and sale prices
  - g. Energy losses
3. The level of cogeneration and other forms of self-generation in the utility's service area for the previous calendar year.
4. As available, a description and map of the utility's transmission system, including the capacity of each segment of the transmission system.

### **R14-2-703. Additional requirements from ACC Decision 58643**

"It is further ordered that each utility shall develop a database of existing renewable energy resources within its service area within six months from the effective date of this Decision; these inventories shall be revised annually and submitted to Staff each year as part of the historical data filings required under the IRP rules."

"It is further ordered that Arizona Public Service Company, Tucson Electric Power Company, Arizona Electric Power Cooperative, and Citizens Utilities Company shall increase their collection of end use load data, obtain commercial and industrial energy sales data by Standard Industrial Classification (SIC) category, collate that information with data on commercial and industrial customers such as number of employees in each SIC category, furnish Staff with a copy of the data to enable Staff to conduct independent analyses, and that Arizona Public Service Company, Tucson Electric Power Company, Arizona Electric Power Cooperative, and Citizens Utilities Company shall include the data described above in their annual IRP data filings."

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As per Docket No. U-0000-95-506, Decision No. 60385 the following sections of the IRP rules have been omitted from this Data Filing:

R14-2-703.A.2	hourly demand by customer class and entity
R14-2-703.A.4	number of customers by class
R14-2-703.A.5	heating and cooling degree days
R14-2-703.A.6	residential customer characteristics
R14-2-703.A.7	nonresidential customer characteristics
R14-2-703.A.8	reduction in load due to demand-side-management
R14-2-703.A.9	annual average prices of electricity

**2009 Integrated Resource Planning Actual Data Filing**

**R14-2-703 A.) Demand-side Data**

1.) Hourly demand for the previous year disaggregated by:

a.) Sales to end users

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Arizona Electric Power Cooperative, Inc. (AEPCO) sells at wholesale and to other utilities (distribution cooperatives) and does not sell directly to end users.

**2009 Integrated Resource Planning Actual Data Filing**

**R14-2-703 A.) Demand-side Data**

1.) Hourly demand for the previous year disaggregated by:

d.) Other disposition of energy such as energy furnished without charge and energy used by the utility.

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**2009 Monthly Energy Used for Station Operation – MWh**

<b>Month</b>	<b>Station Energy</b>
January	26,890.38
February	24,440.76
March	16,613.94
April	15,312.27
May	20,869.87
June	23,127.18
July	30,279.99
August	27,678.57
September	24,466.57
October	25,317.93
November	17,614.83
December	21,617.47
<b>Annual</b>	<b>274,229.76</b>

## 2009 Integrated Resource Planning Actual Data Filing

### R14-2-703 A.) Demand-side Data

- 3.) Coincident peak demand (megawatts) and energy demand (megawatt hours) by month for the previous ten years disaggregated by customer class and, for nonresidential customers, if available, disaggregated by type of business.

Energy disaggregated by customer class is on the following pages. Below is AEPCO's total firm load by month for the previous ten years.

#### Total Firm Coincidental Peak Demand – MW

Month	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Jan	467	478	501	382	392	407	415	458	435	413
Feb	445	479	495	387	395	396	397	432	436	414
Mar	450	451	468	385	387	383	408	430	415	387
Apr	509	483	503	390	380	400	419	442	423	455
May	591	554	591	482	488	518	525	531	493	573
Jun	581	586	527	522	512	569	613	624	565	627
Jul	614	618	547	549	553	608	623	657	564	724
Aug	599	621	534	545	559	574	575	643	567	701
Sep	566	588	508	497	535	538	531	611	538	614
Oct	550	477	388	452	424	485	491	496	467	483
Nov	459	467	343	363	397	409	434	419	393	392
Dec	473	496	384	394	483	415	448	461	426	417

Note – Mohave Electric Cooperative, Inc and Sulphur Springs Valley Electric Cooperative are Partial Requirements Members of AEPCO. As such, AEPCO only serves a portion of their load. Therefore, there may be a requirement that Mohave and/or Sulphur report separately on the portion of their load not served by AEPCO.



## 2009 Integrated Resource Planning Actual Data Filing

### R14-2-703 A.) Demand-side Data

- 3.) Coincident peak demand (megawatts) and energy demand (megawatt hours) by month for the previous ten years disaggregated by customer class and, for nonresidential customers, if available, disaggregated by type of business.

### Total Energy Served – MWh

Month	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Jan	277575	278237	276101	238420	237394	256301	266470	288033	282716	240318
Feb	262204	262232	263719	221538	220292	228799	237919	248930	261017	209490
Mar	278438	282765	298960	242926	236239	254022	268679	277409	273957	216062
Apr	268358	274466	279649	235991	214790	254496	266747	273905	268390	198376
May	320231	313600	297843	256505	264297	279433	303026	306770	287687	273022
Jun	331117	314892	262529	271476	273001	301849	330848	337187	315939	261053
Jul	344645	329010	284787	313624	317715	346040	350902	364431	329605	342696
Aug	318923	331295	279352	309289	303949	320016	327156	352825	328042	316644
Sep	302132	288482	244326	269807	260063	292169	288662	317315	294168	268132
Oct	282793	271613	216073	244955	231478	259413	264387	282760	269114	224123
Nov	282068	268881	201734	221361	223121	230996	235500	257255	234854	190179
Dec	294959	284943	229574	237364	253461	261814	280721	287624	262961	242069
Annual	3563443	3500416	3134647	3063256	3035800	3285348	3421017	3594444	3408450	2982164

Note – Mohave Electric Cooperative, Inc and Sulphur Springs Valley Electric Cooperative are Partial Requirements Members of AEPCO. As such, AEPCO only serves a portion of their energy needs. Therefore, there may be a requirement that Mohave and/or report separately on the portion of their energy not served by AEPCO.

**2009 Integrated Resource Planning Actual Data Filing**

**R14-2-703 A.) Demand-side Data**

- 3.) Coincident peak demand (megawatts) and energy demand (megawatt hours) by month for the previous ten years disaggregated by customer class and, for nonresidential customers, if available, disaggregated by type of business.
- 

**Residential Class - Energy Served – MWh**

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**2009 Integrated Resource Planning Actual Data Filing**

**R14-2-703 A.) Demand-side Data**

- 3.) Coincident peak demand (megawatts) and energy demand (megawatt hours) by month for the previous ten years disaggregated by customer class and, for nonresidential customers, if available, disaggregated by type of business.
- 

**Irrigation Class - Energy Served – MWh**

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**R14-2-703 A.) Demand-side Data**

- 3.) Coincident peak demand (megawatts) and energy demand (megawatt hours) by month for the previous ten years disaggregated by customer class and, for nonresidential customers, if available, disaggregated by type of business.
- 

**Small Commercial Class (< 350 kW) - Energy Served – MWh**

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**R14-2-703 A.) Demand-side Data**

- 3.) Coincident peak demand (megawatts) and energy demand (megawatt hours) by month for the previous ten years disaggregated by customer class and, for nonresidential customers, if available, disaggregated by type of business.
- 

**Large Commercial Class (> 350 kW) - Energy Served – MWh**

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**R14-2-703 A.) Demand-side Data**

- 3.) Coincident peak demand (megawatts) and energy demand (megawatt hours) by month for the previous ten years disaggregated by customer class and, for nonresidential customers, if available, disaggregated by type of business.
- 

**Special Contracts – Other Sales - Energy Served – MWh**

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**R14-2-703 A.) Demand-side Data**

- 3.) Coincident peak demand (megawatts) and energy demand (megawatt hours) by month for the previous ten years disaggregated by customer class and, for nonresidential customers, if available, disaggregated by type of business.
- 

**Sales for Resale - Energy Served – MWh**

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**R14-2-703 A.) Demand-side Data**

- 3.) Coincident peak demand (megawatts) and energy demand (megawatt hours) by month for the previous ten years disaggregated by customer class and, for nonresidential customers, if available, disaggregated by type of business.
- 

**Highway Lighting Class - Energy Served – MWh**

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## 2009 Integrated Resource Planning Actual Data Filing

### R14-2-703 B.) Supply-side Data

1.) For each generating unit and purchased power contract for the previous calendar year:

a.) In-service date

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#### In-Service Date of Generating Units & Purchased Power Contracts

Unit/Contract	In-Service Date
Gas Turbine 1	February, 1963
Steam Turbine 1	November, 1964
Gas Turbine 2	June, 1972
Gas Turbine 3	June, 1975
Gas Turbine 4	October, 2002
Steam Turbine 2	January, 1979
Steam Turbine 3	September, 1979
PNM	June, 1991
SCL-IP	January, 1969
Parker-Davis	January, 1969
SPPR	June, 2007
Gas Turbine 1	February, 1963

## 2009 Integrated Resource Planning Actual Data Filing

### R14-2-703 B.) Supply-side Data

1.) For each generating unit and purchased power contract for the previous calendar year:

b.) Book Life or Contract Period

#### Expected Retirement Dates

Unit/Contract	Retirement Date
Gas Turbine 1	***
Steam Turbine 1	***
Gas Turbine 2	***
Gas Turbine 3	***
Gas Turbine 4	***
Steam Turbine 2	December, 2035
Steam Turbine 3	December, 2035
PNM	December, 2008
SCL-IP	***
Parker-Davis	***
SPPR	September, 2010
Gas Turbine 1	***

\*\*\* Indicates that no retirement date has been acknowledged or specified as of 12-31-09 and the unit/contract should be considered to be in-service through the long term planning horizon.

**2009 Integrated Resource Planning Actual Data Filing**

**R14-2-703 B.) Supply-side Data**

1.) For each generating unit and purchased power contract for the previous calendar year:

c.) Capacity in megawatts (utility share)

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**2009 Maximum Capacity - MW**

<b>Unit/Contract</b>	<b>Maximum Capacity</b>
Gas Turbine 1	10
Steam Turbine 1	75
Gas Turbine 2	20
Gas Turbine 3	65
Gas Turbine 4	40
Steam Turbine 2	195
Steam Turbine 3	195
SCL-IP	8.86
Parker-Davis	23.8
SPPR	25

**2009 Integrated Resource Planning Actual Data Filing**

**R14-2-703 B.) Supply-side Data**

1.) For each generating unit and purchased power contract for the previous calendar year:

d.) Maximum unit or contract capacity by hour, day or month, if such capacity varies over the year.

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**2009 Seasonal Contract Capacity - MW**

<b>Month</b>	<b>SLC-IP</b>	<b>Parker-Davis</b>	<b>SPPR</b>
January	2.398	18.284	0.000
February	2.398	18.284	0.000
March	2.398	23.637	0.000
April	11.669	23.637	0.000
May	11.669	23.637	0.000
June	11.669	23.637	0.000
July	11.669	23.637	0.000
August	11.669	23.637	0.000
September	11.669	23.637	0.000
October	2.398	18.284	0.000
November	2.398	18.284	0.000
December	2.398	18.284	0.000

**2009 Integrated Resource Planning Actual Data Filing**

**R14-2-703 B.) Supply-side Data**

1.) For each generating unit and purchased power contract for the previous calendar year:

e.) Forced outage rate (generating units only)

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**2009 Actual and Planning Forced Outage Rates - %**

<b>Unit</b>	<b>Actual FOR</b>	<b>Planning FOR</b>
Steam Turbine 1	76.85	15.61
Gas Turbine 1	71.11	14.65
Combined Cycle (ST1 & GT1)	96.71	0.11
Gas Turbine 2	4.60	0.05
Gas Turbine 3	50.10	0.00
Gas Turbine 4	1.52	7.81
Steam Turbine 2	9.98	10.39
Steam Turbine 3	76.85	15.61

**2009 Integrated Resource Planning Actual Data Filing**

**R14-2-703 B.) Supply-side Data**

1.) For each generating unit and purchased power contract for the previous calendar year:

f.) Average heat rate of generating units, and, if available, heat rates at selected output levels.

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**2009 Average Heat Rate – Btu/kWh**

Unit	2009 Average Heat Rate
Gas Turbine 1	27,767
Gas Turbine 2	16,833
Gas Turbine 3	17,934
Gas Turbine 4	11,881
Steam Turbine 1	12,258
Steam Turbine 2	10,953
Steam Turbine 3	10,867

**2009 Integrated Resource Planning Actual Data Filing**

**R14-2-703 B.) Supply-side Data**

1.) For each generating unit and purchased power contract for the previous calendar year:

g.) Fuel cost for generating units in dollars per million Btu for each type of fuel

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**2009 Variable Fuel Data**

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**2009 Integrated Resource Planning Actual Data Filing**

**R14-2-703 B.) Supply-side Data**

1.) For each generating unit and purchased power contract for the previous calendar year:

h.) Other variable operating and maintenance costs for generating units in dollars per megawatt hour

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**2009 Variable Operating & Maintenance Costs - \$/MWh**

Unit	Variable O&M
Combined Cycle (ST1 & ST1)	\$1.25
Gas Turbine 2	\$4.00
Gas Turbine 3	\$4.00
Gas Turbine 4	\$1.25
Steam Turbine 2	\$1.25
Steam Turbine 3	\$1.25



**2009 Integrated Resource Planning Actual Data Filing**

**R14-2-703 B.) Supply-side Data**

- 1.) For each generating unit and purchased power contract for the previous calendar year:
    - i.) Purchase power energy costs for contract purchases in dollars per megawatt hour.
- 

**2009 Purchased Power Energy Costs - \$/MWh**

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**2009 Integrated Resource Planning Actual Data Filing**

**R14-2-703 B.) Supply-side Data**

- l.) For each generating unit and purchased power contract for the previous calendar year:
    - j.) Fixed operating & maintenance costs of generating units in dollars per megawatt for the year.
- 

**2009 Fixed Operating & Maintenance Costs - \$/MW-yr**

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**2009 Integrated Resource Planning Actual Data Filing**

**R14-2-703 B.) Supply-side Data**

l.) For each generating unit and purchased power contract for the previous calendar year:

k.) Demand charges for purchase power

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**2009 Purchased Power Demand Costs - \$/kw-month**

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**2009 Integrated Resource Planning Actual Data Filing**

**R14-2-703 B.) Supply-side Data**

1.) For each generating unit and purchased power contract for the previous calendar year:

1.) Fuel types for generating units.

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**2009 Primary & Secondary Fuel Types for Each Unit**

Unit	Primary Fuel	Secondary Fuel
Combined Cycle (Gt-1 + St-1)	Gas	Oil
Gas Turbine 2	Gas	Oil
Gas Turbine 3	Gas	Oil
Gas Turbine 4	Gas	Oil
Steam Turbine 2	Coal	Gas
Steam Turbine 3	Coal	Gas

## 2009 Integrated Resource Planning Actual Data Filing

### R14-2-703 B.) Supply-side Data

1.) For each generating unit and purchased power contract for the previous calendar year:

m.) Minimum capacity at which the unit would be run or power must be purchased.

#### 2009 Minimum Capacity – MW

Unit	Minimum
Combined Cycle (Gt-1 + St-1)	35.0
Gas Turbine 2	6.0
Gas Turbine 3	15.0
Gas Turbine 4	10.0
Steam Turbine 2	120.0
Steam Turbine 3	120.0
PNM Purchase	0.0
SLC-IP Purchase	0.258
Parker-Davis Purchase	4.675
SPPR Purchase	25.0
Combined Cycle (Gt-1 + St-1)	35.0

\*Contract capacity varies by month. Values shown are annual off-peak minimums.

## **2009 Integrated Resource Planning Actual Data Filing**

### **R14-2-703 B.) Supply-side Data**

- 1.) For each generating unit and purchased power contract for the previous calendar year:
    - n.) Whether, under standard operating procedures, the generating unit must be run, if it is available.
- 

### **Identification of Must-Run Units**

Under standard operating procedures, if they are available to run, Steam Turbine 2 and Steam Turbine 3 must run.

## 2009 Integrated Resource Planning Actual Data Filing

### R14-2-703 B.) Supply-side Data

1.) For each generating unit and purchased power contract for the previous calendar year:

o.) Maintenance schedules for generating units.

### 2009 Scheduled Maintenance

Unit	Start Date	Start Hour	End Date	End Hour	Duration - HR:Min	Type of Outage*
ST1	1/8/2009	6:00:00	1/31/2009	24:00:00	570:00:00	PO
GT1	1/8/2009	6:00:00	1/31/2009	24:00:00	570:00:00	PO
ST2	1/21/2009	0:09:00	1/22/2009	11:34:00	35:25:00	MO
ST1	2/1/2009	0:00:00	2/28/2009	24:00:00	648:00:00	PO
GT1	2/1/2009	0:00:00	2/28/2009	24:00:00	648:00:00	PO
GT2	2/5/2009	13:00:00	2/5/2009	15:52:00	2:52:00	PO
GT2	2/7/2009	10:15:00	2/7/2009	17:24:00	7:09:00	PO
GT2	2/20/2009	10:00:00	2/20/2009	11:35:00	1:35:00	MO
GT3	2/5/2009	8:45:00	2/5/2009	13:00:00	4:15:00	PO
ST1	3/1/2009	0:00:00	3/6/2009	10:00:00	130:00:00	PO
GT1	3/1/2009	0:00:00	3/2/2009	17:12:00	41:12:00	PO
ST3	3/6/2009	22:32:00	3/31/2009	24:00:00	601:28:00	PO
GT2	3/16/2009	7:30:00	3/16/2009	9:20:00	1:50:00	MO
ST3	4/1/2009	0:00:00	4/9/2009	1:00:00	193:00:00	PO
ST3	4/9/2009	1:42:00	4/9/2009	12:13:00	10:31:00	PO
ST2	5/28/2009	21:53:00	5/31/2009	24:00:00	74:07:00	MO
ST3	5/2/2009	14:54:00	5/2/2009	15:13:00	0:19:00	PO
GT1	6/2/2009	6:30:00	6/11/2009	10:50:00	220:20:00	MO
ST2	6/1/2009	0:00:00	6/1/2009	8:07:00	8:07:00	MO
GT2	6/17/2009	6:30:00	6/17/2009	18:40:00	12:10:00	MO
GT1	7/22/2009	22:14:00	7/23/2009	16:47:00	43:33:00	MO
GT3	7/31/2009	5:02:00	7/31/2009	11:23:00	6:21:00	MO
GT-3	9/22/2009	7:00:00	9/22/2009	15:55:00	8:55:00	MO
GT-4	9/29/2009	7:15:00	9/29/2009	12:30:00	5:15:00	MO
GT-4	10/21/2009	13:30:00	12/21/2009	17:00:00	1467:30:00	MO
ST1	11/10/2009	9:15:00	11/15/2009	17:00:00	127:45:00	MO
GT1	11/10/2009	9:15:00	11/14/2009	14:40:00	101:25:00	MO
ST2	11/13/2009	21:08:00	11/30/2009	24:00:00	410:52:00	PO

**2009 Integrated Resource Planning Actual Data Filing**

ST3	11/6/2009	23:00:00	11/11/2009	7:52:00	128:52:00	PO
GT3	11/4/2009	7:07:00	11/4/2009	9:03:00	1:56:00	MO
GT4	11/4/2009	10:24:00	11/4/2009	16:50:00	6:26:00	MO
ST2	12/1/2009	0:00:00	12/12/2009	9:35:00	273:35:00	PO

\* PO – Planned Outage

MO – Maintenance Outage



## 2009 Integrated Resource Planning Actual Data Filing

### R14-2-703 B.) Supply-side Data

1.) For each generating unit and purchased power contract for the previous calendar year:

p.) Other data related to generating units and purchased power contracts which the utility uses in its production planning and supply models.

### AEPCO Current Planning Maintenance Cycle Assumptions

#### Apache ST-1

2009	6 weeks	January - February Timeframe
2010	1 week	January Timeframe
2011	1 week	January Timeframe
2012	1 week	January Timeframe
2013	4 weeks	January - February Timeframe
2014	1 week	January Timeframe
2015	1 week	January Timeframe
2016	1 week	January Timeframe
2017	6 weeks	January - February Timeframe
2018	1 week	January Timeframe
2019	1 week	January Timeframe
2020	1 week	January Timeframe
2021	4 weeks	January - February Timeframe
2022	1 week	January Timeframe
2023	1 week	January Timeframe
2024	1 week	January Timeframe
2025	6 weeks	January - February Timeframe

#### Apache ST-2

2010	4 weeks	March-April Timeframe
2012	4 weeks	March-April Timeframe
2014	6 weeks	March-April Timeframe
2016	6 weeks	March-April Timeframe
2018	4 weeks	March-April Timeframe
2020	6 weeks	March-April Timeframe
2022	4 weeks	March-April Timeframe
2024	4 weeks	March-April Timeframe

## 2009 Integrated Resource Planning Actual Data Filing

### R14-2-703 B.) Supply-side Data

1.) For each generating unit and purchased power contract for the previous calendar year:

p.) Other data related to generating units and purchased power contracts which the utility uses in its production planning and supply models.

### AEPCO Current Planning Maintenance Cycle Assumptions

Apache ST-3	2009	4 weeks	March-April Timeframe
	2011	6 weeks	March-April Timeframe
	2013	4 weeks	March-April Timeframe
	2015	4 weeks	March-April Timeframe
	2017	6 weeks	March-April Timeframe
	2019	4 weeks	March-April Timeframe
	2021	4 weeks	March-April Timeframe
	2023	6 weeks	March-April Timeframe
	2025	4 weeks	March-April Timeframe
Apache GT-1	2009	2 days	January Timeframe
	2010	10 weeks	January-March Timeframe
	2011	2 days	January Timeframe
	2012	4 weeks	January-February Timeframe
	2013	2 days	January Timeframe
	2014	8 weeks	January-March Timeframe
	2015	2 days	January Timeframe
	2016	4 weeks	January-February Timeframe
	2017	2 days	January Timeframe
	2018	10 weeks	January-March Timeframe
	2019	2 days	January Timeframe
	2020	4 weeks	January-February Timeframe
	2021	2 days	January Timeframe
	2022	8 weeks	January-March Timeframe
	2023	2 days	January Timeframe
	2024	4 weeks	January-February Timeframe
	2025	2 days	January Timeframe

## 2009 Integrated Resource Planning Actual Data Filing

### R14-2-703 B.) Supply-side Data

1.) For each generating unit and purchased power contract for the previous calendar year:

p.) Other data related to generating units and purchased power contracts which the utility uses in its production planning and supply models.

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### AEPCO Current Planning Maintenance Cycle Assumptions

#### Apache GT-2

2009	2 days	January Timeframe
2010	2 days	January Timeframe
2011	2 days	January Timeframe
2012	2 days	January Timeframe
2013	10 weeks	February-April Timeframe
2014	2 days	January Timeframe
2015	2 days	January Timeframe
2016	2 days	January Timeframe
2017	2 days	January Timeframe
2018	2 days	January Timeframe
2019	2 days	January Timeframe
2020	2 days	January Timeframe
2021	2 days	January Timeframe
2022	2 days	January Timeframe
2023	2 days	January Timeframe
2024	2 days	January Timeframe
2025	2 days	January Timeframe

#### Apache GT-3

2009	3 days	January Timeframe
2010	3 days	January Timeframe
2011	3 days	January Timeframe
2012	12 weeks	February-April Timeframe
2013	3 days	January Timeframe
2014	3 days	January Timeframe
2015	3 days	January Timeframe
2016	3 days	January Timeframe
2017	3 days	January Timeframe
2018	3 days	January Timeframe
2019	3 days	January Timeframe
2020	3 days	January Timeframe
2021	3 days	January Timeframe
2022	3 days	January Timeframe
2023	3 days	January Timeframe
2024	3 days	January Timeframe
2025	3 days	January Timeframe

## 2009 Integrated Resource Planning Actual Data Filing

### R14-2-703 B.) Supply-side Data

1.) For each generating unit and purchased power contract for the previous calendar year:

p.) Other data related to generating units and purchased power contracts which the utility uses in its production planning and supply models.

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### AEPCO Current Planning Maintenance Cycle Assumptions

#### Apache GT-4

2009	2 days	February Timeframe
2010	3 days	February Timeframe
2011	8 weeks	January-March Timeframe
2012	2 days	February Timeframe
2013	2 days	February Timeframe
2014	2 days	February Timeframe
2015	2 days	February Timeframe
2016	2 days	February Timeframe
2017	2 days	February Timeframe
2018	2 days	February Timeframe
2019	2 days	February Timeframe
2020	2 days	February Timeframe
2021	2 days	February Timeframe
2022	2 days	February Timeframe
2023	2 days	February Timeframe
2024	8 weeks	September-November Timeframe
2025	2 days	February Timeframe

## 2009 Integrated Resource Planning Actual Data Filing

### R14-2-703 B.) Supply-side Data

- 1.) For each generating unit and purchased power contract for the previous calendar year:
- p.) Other data related to generating units and purchased power contracts which the utility uses in its production planning and supply models.
- 

### 2009 Net Unit Generation – MWh

Month	St-1	Gt-1	St-2	St-3	Gt-2	Gt-3	Gt-4
January	0.00	0.00	108,457.13	114,069.80	0.00	0.00	0.00
February	202.85	0.00	101,935.48	96,786.60	3.90	0.00	0.00
March	1,274.04	0.00	99,134.64	17,425.10	23.87	0.00	0.00
April	0.00	0.00	101,720.84	5,907.83	1.88	245.49	2,960.66
May	5,135.11	884.76	90,846.50	50,906.28	0.02	2,306.74	4,683.40
June	250.37	0.00	80,140.27	77,555.52	0.00	545.97	1,248.74
July	15,145.17	2,137.13	105,052.16	110,847.03	0.00	2,637.21	8,646.67
August	0.00	0.00	95,862.26	110,539.37	0.78	4,069.88	5,946.02
September	0.00	0.00	85,764.09	90,616.99	0.02	1,800.02	3,424.16
October	84.52	0.00	86,382.77	102,204.01	0.06	297.24	961.43
November	9,051.99	473.21	35,434.71	77,166.06	0.00	1,002.55	2,437.00
December	3,924.48	908.82	47,045.60	116,028.34	67.92	2,544.78	7,738.00
<b>Annual</b>	<b>35,068.52</b>	<b>4,403.93</b>	<b>1,037,776.45</b>	<b>970,052.93</b>	<b>98.44</b>	<b>15,449.88</b>	<b>38,046.08</b>

## 2009 Integrated Resource Planning Actual Data Filing

### R14-2-703 B.) Supply-side Data

1.) For each generating unit and purchased power contract for the previous calendar year:

p.) Other data related to generating units and purchased power contracts which the utility uses in its production planning and supply models.

### Inventory of Existing Renewable Resources – 2009

Cooperative	In-Service Month	Size	Type	Technology	On Grid	Off Grid
GCEC	January	4,080	Residential	PV	X	
GCEC	January	12,240	Residential	PV	X	
GCEC	February	4,160	Residential	PV	X	
GCEC	February	12,240	Residential	PV	X	
GCEC	March	10,200	Residential	PV	X	
GCEC	March	14,280	Residential	PV	X	
GCEC	June	3,024	Residential	PV	X	
GCEC	June	1,020	Residential	PV		X
GCEC	July	4,080	Residential	PV	X	
GCEC	August	12,240	Residential	PV	X	
GCEC	September	8,064	Residential	PV	X	
GCEC	September	12,600	Commercial	PV	X	
GCEC	October	15,552	Commercial	PV	X	
GCEC	October	510	Residential	PV	X	
GCEC	October	5,250	Residential	PV	X	
GCEC	November	5,200	Residential	PV	X	
GCEC	November	10,200	Residential	PV	X	
GCEC	November	10,200	Residential	PV	X	
GCEC	December	4,200	Residential	PV	X	
GCEC	December	12,600	Residential	PV	X	
GCEC	March	2,400	Commercial	Wind		X
GCEC	June	7,200	Residential	Wind	X	
GCEC	June	7,200	Residential	Wind	X	
GCEC	June	14,400	Residential	Wind	X	
GCEC	July	1,163	Residential	WH	X	
Trico	01/12/09	4,300	Residential	PV	X	
Trico	01/19/09	3,200	Residential	PV	X	
Trico	02/05/09	3,900	Residential	PV	X	
Trico	02/10/09	6,600	Residential	PV	X	
Trico	02/16/09	4,320	Residential	PV	X	
Trico	02/18/09	7,360	Residential	PV	X	
Trico	02/20/09	2,200	Residential	PV	X	
Trico	03/19/09	4,560	Residential	PV	X	
Trico	04/06/09	2,800	Residential	PV	X	
Trico	04/24/09	3,780	Residential	PV	X	
Trico	04/30/09	4,140	Residential	PV	X	
Trico	05/01/09	2,400	Residential	PV	X	
Trico	05/08/09	3,150	Residential	PV	X	
Trico	05/11/09	2,688	Residential	PV	X	
Trico	05/12/09	2,500	Residential	PV	X	
Trico	05/19/09	3,500	Residential	PV	X	
Trico	06/08/09	4,620	Residential	PV	X	
Trico	6/102009	2,760	Residential	PV	X	
Trico	06/23/09	6,300	Residential	PV	X	
Trico	06/23/09	4,200	Commercial	PV	X	

## 2009 Integrated Resource Planning Actual Data Filing

### R14-2-703 B.) Supply-side Data

- 1.) For each generating unit and purchased power contract for the previous calendar year:
- p.) Other data related to generating units and purchased power contracts which the utility uses in its production planning and supply models.

### Inventory of Existing Renewable Resources – 2009

Trico	6/26/2009	4,000	Residential	PV	X	
Trico	6/26/2009	4,140	Residential	PV	X	
Trico	6/26/2010	5,040	Residential	PV	X	
Trico	6/29/2009	780	Residential	PV	X	
Trico	6/29/2009	7,590	Residential	PV	X	
Trico	07/01/09	2,590	Residential	PV		X
Trico	7/8/2009	6,600	Residential	PV	X	
Trico	07/09/09	3,150	Residential	PV	X	
Trico	7/10/2009	4,200	Residential	PV	X	
Trico	7/29/2009	4,600	Residential	PV	X	
Trico	7/29/2009	8,280	Residential	PV	X	
Trico	7/30/2009	6,000	Residential	PV	X	
Trico	8/6/2009	5,805	Residential	PV	X	
Trico	8/7/2009	4,950	Residential	PV	X	
Trico	8/10/2009	2,760	Residential	PV	X	
Trico	8/24/2009	4,050	Residential	PV	X	
Trico	8/27/2009	8,100	Residential	PV	X	
Trico	8/27/2009	5,100	Residential	PV	X	
Trico	8/28/2009	7,000	Residential	PV	X	
Trico	9/3/2009	2,040	Residential	PV	X	
Trico	9/9/2009	3,440	Residential	PV	X	
Trico	9/14/2009	6,210	Residential	PV	X	
Trico	9/15/2009	4,620	Residential	PV	X	
Trico	9/17/2009	6,300	Residential	PV	X	
Trico	9/18/2009	4,200	Residential	PV	X	
Trico	9/21/2009	1,792	Residential	PV	X	
Trico	9/22/2009	2,100	Residential	PV	X	
Trico	9/23/2009	1,750	Residential	PV	X	
Trico	9/28/2009	5,880	Residential	PV	X	
Trico	9/28/2009	3,150	Residential	PV	X	
Trico	9/28/2009	6,300	Residential	PV	X	
Trico	9/28/2009	7,776	Residential	PV	X	
Trico	9/28/2009	6,300	Residential	PV	X	
Trico	9/28/2009	8,190	Residential	PV	X	
Trico	10/1/2009	6,300	Residential	PV	X	
Trico	10/1/2009	5,460	Residential	PV	X	
Trico	10/1/2009	8,190	Residential	PV	X	
Trico	10/5/2009	6,650	Residential	PV	X	
Trico	10/5/2009	3,000	Residential	PV	X	
Trico	10/5/2009	6,900	Residential	PV	X	
Trico	10/5/2009	840	Residential	PV	X	
Trico	10/8/2009	6,300	Residential	PV	X	
Trico	10/8/2009	2,500	Residential	PV	X	
Trico	10/8/2009	1,720	Residential	PV	X	
Trico	10/12/2009	3,870	Residential	PV	X	
Trico	10/16/2009	5,520	Residential	PV	X	
Trico	10/16/2009	8,424	Residential	PV	X	
Trico	10/16/2009	5,460	Residential	PV	X	
Trico	10/20/2009	5,160	Residential	PV	X	

## 2009 Integrated Resource Planning Actual Data Filing

### R14-2-703 B.) Supply-side Data

1.) For each generating unit and purchased power contract for the previous calendar year:

p.) Other data related to generating units and purchased power contracts which the utility uses in its production planning and supply models.

### Inventory of Existing Renewable Resources – 2009

Trico	10/22/2009	6,300	Residential	PV	X	
Trico	10/25/2009	3,150	Residential	PV	X	
Trico	10/27/2009	6,300	Residential	PV	X	
Trico	11/2/2009	3,360	Residential	PV	X	
Trico	11/3/2009	8,190	Residential	PV	X	
Trico	11/6/2009	15,180	Commercial	PV	X	
Trico	11/9/2009	4,300	Residential	PV	X	
Trico	11/10/2009	3,150	Residential	PV	X	
Trico	11/11/2009	6,075	Residential	PV	X	
Trico	11/12/2009	5,060	Residential	PV	X	
Trico	12/4/2009	2,100	Residential	PV	X	
Trico	12/10/2009	4,300	Residential	PV	X	
Trico	12/12/2009	4,300	Residential	PV	X	
Trico	12/16/2009	5,000	Residential	PV	X	
Trico	12/18/2009	6,300	Residential	PV	X	
Trico	12/18/2009	4,200	Residential	PV	X	
Trico	12/18/2009	7,425	Residential	PV	X	
Trico	12/22/2009	6,750	Residential	PV	X	
Trico	12/23/2009	11,400	Residential	PV	X	
Trico	1/14/2009	2,100	Residential	WH	X	
Trico	2/10/2009	3,100	Residential	WH	X	
Trico	2/23/2009	2,600	Residential	WH	X	
Trico	3/2/2009	3,400	Residential	WH	X	
Trico	3/13/2009	2,200	Residential	WH	X	
Trico	3/24/2009	3,100	Residential	WH	X	
Trico	3/24/2009	1,758	Residential	WH	X	
Trico	4/9/2009	2,200	Residential	WH	X	
Trico	5/8/2009	2,800	Residential	WH	X	
Trico	4/21/2009	5,421	Residential	WH	X	
Trico	6/11/2009	3,060	Residential	WH	X	
Trico	6/11/2009	2,600	Residential	WH	X	
Trico	7/8/2009	2,900	Residential	WH	X	
Trico	7/29/2009	3,408	Residential	WH	X	
Trico	7/31/2009	2,439	Residential	WH	X	
Trico	8/4/2009	3,034	Residential	WH	X	
Trico	8/6/2009	2,800	Residential	WH	X	
Trico	8/21/2009	2,546	Residential	WH	X	
Trico	9/11/2009	3,064	Residential	WH	X	
Trico	10/7/2009	2,546	Residential	WH	X	
Trico	10/8/2009	3,408	Residential	WH	X	
Trico	10/20/2009	2,616	Residential	WH	X	
Trico	11/17/2009	2,888	Residential	WH	X	
Trico	12/28/2009	3,060	Residential	WH	X	
Trico	12/29/2009	3,151	Residential	WH	X	
MEC	January	1,200	Residential	PV	X	
MEC	January	3,200	Residential	PV	X	
MEC	February	7,000	Residential	PV	X	
MEC	February	3,400	Residential	PV	X	
MEC	February	700	Commercial	PV	X	
MEC	February	4,560	Residential	PV	X	
MEC	February	3,040	Residential	PV	X	
MEC	February	4,000	Residential	PV	X	



## 2009 Integrated Resource Planning Actual Data Filing

### R14-2-703 B.) Supply-side Data

- 1.) For each generating unit and purchased power contract for the previous calendar year:
- p.) Other data related to generating units and purchased power contracts which the utility uses in its production planning and supply models.
- 

### Inventory of Existing Renewable Resources – 2009

MEC	February	3,040	Residential	PV	X
MEC	March	3,510	Residential	PV	X
MEC	March	2,800	Residential	PV	X
MEC	March	3,200	Residential	PV	X
MEC	April	5,460	Residential	PV	X
MEC	April	12,240	Residential	PV	X
MEC	April	2,990	Residential	PV	X
MEC	May	3,200	Residential	PV	X
MEC	May	3,000	Residential	PV	X
MEC	May	6,150	Residential	PV	X
MEC	May	3,040	Residential	PV	X
MEC	May	3,040	Residential	PV	X
MEC	June	3,200	Residential	PV	X
MEC	June	3,040	Residential	PV	X
MEC	June	3,040	Residential	PV	X
MEC	June	3,200	Residential	PV	X
MEC	July	3,120	Residential	PV	X
MEC	July	10,000	Residential	PV	X
MEC	July	3,040	Residential	PV	X
MEC	July	3,040	Residential	PV	X
MEC	July	5,060	Residential	PV	X
MEC	July	5,160	Residential	PV	X
MEC	August	2,000	Residential	PV	X
MEC	August	9,600	Residential	PV	X
MEC	August	3,120	Residential	PV	X
MEC	August	7,020	Commercial	PV	X
MEC	August	7,000	Residential	PV	X
MEC	August	3,020	Residential	PV	X
MEC	August	5,250	Residential	PV	X
MEC	September	7,980	Commercial	PV	X
MEC	October	8,400	Residential	PV	X
MEC	October	5,040	Residential	PV	X
MEC	October	3,120	Residential	PV	X
MEC	October	20,000	Residential	PV	X
MEC	October	4,140	Residential	PV	X
MEC	October	3,360	Residential	PV	X
MEC	October	3,120	Residential	PV	X
MEC	October	8,190	Residential	PV	X
MEC	October	3,120	Residential	PV	X
MEC	October	4,300	Residential	PV	X
MEC	October	10,080	Residential	PV	X
MEC	October	11,760	Residential	PV	X
MEC	October	6,150	Residential	PV	X
MEC	October	10,000	Residential	PV	X
MEC	November	3,600	Residential	PV	X
MEC	November	7,200	Residential	PV	X
MEC	November	2,940	Residential	PV	X
MEC	November	4,800	Residential	PV	X

## 2009 Integrated Resource Planning Actual Data Filing

### R14-2-703 B.) Supply-side Data

1.) For each generating unit and purchased power contract for the previous calendar year:

p.) Other data related to generating units and purchased power contracts which the utility uses in its production planning and supply models.

### Inventory of Existing Renewable Resources – 2009

MEC	December	4,000	Residential	PV	X	
MEC	December	2,940	Residential	PV	X	
MEC	December	5,805	Residential	PV	X	
MEC	December	2,940	Residential	PV	X	
MEC	December	3,290	Residential	PV	X	
MEC	December	3,360	Residential	PV	X	
MEC	December	3,280	Residential	PV	X	
MEC	December	3,075	Residential	PV	X	
MEC	December	3,150	Residential	PV	X	
MEC	December	3,440	Residential	PV	X	
MEC	December	8,370	Commercial	PV	X	
MEC	December	3,280	Residential	PV	X	
MEC	December	3,075	Residential	PV	X	
MEC	December	5,184	Residential	PV	X	
MEC	January	1,900	Residential	Wind	X	
MEC	January	1,900	Residential	Wind	X	
MEC	March	1,900	Residential	Wind	X	
MEC	March	1,900	Residential	Wind	X	
MEC	June	3,800	Residential	Wind	X	
MEC	June	1,900	Residential	Wind	X	
MEC	July	1,900	Residential	Wind	X	
MEC	July	3,800	Residential	Wind	X	
MEC	August	1,900	Residential	Wind	X	
MEC	August	1,900	Residential	Wind	X	
MEC	August	1,900	Residential	Wind	X	
MEC	October	1,900	Residential	Wind	X	
MEC	October	1,900	Residential	Wind	X	
MEC	October	1,900	Residential	Wind	X	
DVEC	1/28/2009	510	Residential	PV		X
DVEC	6/21/2009	1,360	Commercial	PV		X
DVEC	10/2/2009	10,500	Residential	PV	X	

**Total Watts    1,082,636**

*\*PV=Photovoltaic, SWH=Solar Water Heating, Wind=Small Wind Generation*

**Note: Sulphur Springs Valley Electric Cooperative (SSVEC) has elected to prepare its own Renewables report. Therefore, the totals above exclude SSVEC data.**

**2009 Integrated Resource Planning Actual Data Filing**

**R14-2-703 B.) Supply-side Data**

- 1.) For each generating unit and purchased power contract for the previous calendar year:
    - p.) Other data related to generating units and purchased power contracts which the utility uses in its production planning and supply models.
- 

**2009 Blended Fuel Cost for Apache St-2**

**Confidential**

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executed Confidentiality Agreement dated December 15, 1995**

**2009 Integrated Resource Planning Actual Data Filing**

**R14-2-703 B.) Supply-side Data**

- 1.) For each generating unit and purchased power contract for the previous calendar year:
- p.) Other data related to generating units and purchased power contracts which the utility uses in its production planning and supply models.
- 

**2009 Blended Fuel Cost for Apache St-3**

**Confidential**

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## **2009 Integrated Resource Planning Actual Data Filing**

### **R14-2-703 B.) Supply-side Data**

2.) For the power supply system for the previous calendar year

a.) A description of unit commitment procedures

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### **2009 Commitment Procedures**

In a normal year, Apache Steam units 2 & 3 are about equal in production costs. When both Steam Units 2 & 3 were committed, they were dispatched as equally as possible. The remaining units were measurably different in production costs, with the smaller units being more expensive to operate than the larger ones.

As a preference customer in 2009, AEPCO also had contract entitlements to Parker-Davis hydro and Salt Lake City Area Integrated Projects capacity (Colorado River Storage Project hydro). These hydro contracts were AEPCO's least expensive resources and were scheduled to the extent allowed in each contract against AEPCO's loads. This tends to level the output required from Apache Station and maximize station efficiency. AEPCO also entered into short-term economy and take-or-pay agreements that were used for fuel displacement and maintenance outage coverage. These other contract resources fit into the same operational mode as the aforementioned hydro contracts.

Thus, subject to availability, the units were generally committed in economic order against the net of load minus hydro and short-term, take-or-pay contracts. Departures from strict economic order occurred when short-term forecasts of net loads did not justify startup of the next higher-cost unit or continued commitment of a particular unit. In these cases, a smaller unit (i.e. the 20 MW peaker versus the 69 MW peaker, for instance) was started instead.

**2009 Integrated Resource Planning Actual Data Filing**

**R14-2-703 B.) Supply-side Data**

2.) For the power supply system for the previous calendar year

b.) Production cost

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**2009 Production Costs**

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**2009 Integrated Resource Planning Actual Data Filing**

**R14-2-703 B.) Supply-side Data**

2.) For the power supply system for the previous calendar year

c.) Reserve Requirements

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**2009 Actual Daily Average Reserve Requirements - MW**

<b>Month</b>	<b>Actual Reserves</b>	<b>Reserve Requirement</b>
January	57	42
February	56	40
March	73	36
April	63	35
May	81	37
June	76	39
July	99	43
August	77	41
September	79	40
October	85	38
November	76	36
December	75	39

**2009 Integrated Resource Planning Actual Data Filing**

**R14-2-703 B.) Supply-side Data**

2.) For the power supply system for the previous calendar year

d.) Spinning reserves

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**2009 Actual Daily Average Spinning Reserves - MW**

<b>Month</b>	<b>Actual Reserves</b>	<b>Reserve Requirements</b>
January	44	21
February	47	20
March	36	18
April	35	17
May	54	18
June	48	19
July	77	21
August	53	20
September	54	20
October	52	19
November	49	18
December	52	20



## 2009 Integrated Resource Planning Actual Data Filing

### R14-2-703 B.) Supply-side Data

2.) For the power supply system for the previous calendar year

e.) Reliability of generation, transmission and distribution systems

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### 2009 Transmission and Distribution Reliability

Month	Outage Hrs:Min:Sec	Average Number of Customers Affected
January	3:29:18	6,682
February	0:01:12	6,682
March	0:19:05	10,339
April	3:16:18	15,377
May	0:00:00	0
June	3:25:29	23,067
July	0:07:33	15,044
August	0:01:18	4,696
September	0:00:08	1,056
October	0:17:58	6,338
November	0:00:00	0
December	0:00:00	0

## 2009 Integrated Resource Planning Actual Data Filing

### R14-2-703 B.) Supply-side Data

2.) For the power supply system for the previous calendar year

e.) Reliability of generation, transmission and distribution systems.

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### 2009 Generation Reliability – Unscheduled Outage Hours

Month	St-1	Gt-1	St-2	St-3	Gt-2	Gt-3	Gt-4	Total
Jan	0.00	64.15	0.00	0.00	0.00	0.00	744.00	808.15
Feb	0.75	0.00	0.00	0.00	83.50	0.00	668.70	752.95
Mar	353.00	0.00	0.00	0.00	0.93	0.00	74.98	428.91
Apr	720.00	0.00	0.00	397.25	0.00	2.39	15.17	1134.81
May	530.50	0.00	0.00	317.51	0.00	0.00	13.74	861.75
Jun	169.00	11.42	7.03	63.83	0.00	0.00	1.72	253.00
Jul	208.31	189.28	0.00	0.00	5.63	0.05	5.35	408.62
Aug	744.00	744.00	0.55	0.00	54.37	7.75	12.00	1562.67
Sep	720.00	720.00	1.43	0.78	0.00	0.00	1.21	1443.42
Oct	641.35	539.64	31.07	0.00	0.00	0.00	15.76	1227.82
Nov	136.20	149.43	0.00	1.43	0.00	7.75	10.30	305.11
Dec	111.20	90.96	80.50	0.00	4.30	9.53	13.44	309.93
<b>Annual</b>	<b>4334.31</b>	<b>2508.88</b>	<b>120.58</b>	<b>780.80</b>	<b>148.73</b>	<b>27.47</b>	<b>1576.37</b>	<b>9497.14</b>

## 2009 Integrated Resource Planning Actual Data Filing

### R14-2-703 B.) Supply-side Data

2.) For the power supply system for the previous calendar year

f.) Interchange purchase & sale prices

#### 2009 Interchange Purchases

Month	MWh	Amount - \$ *	\$/MWh
January	32,644	\$991,558.83	\$30.38
February	20,445	\$532,033.50	\$26.02
March	96,920	\$3,986,727.36	\$41.13
April	80,708	\$3,207,235.00	\$39.74
May	90,790	\$3,940,018.16	\$43.40
June	76,683	\$4,191,284.57	\$54.66
July	62,624	\$3,431,679.16	\$54.80
August	79,124	\$3,890,729.56	\$49.17
September	51,202	\$2,408,725.11	\$47.04
October	40,696	\$2,386,557.32	\$58.64
November	75,053	\$2,277,441.82	\$30.34
December	82,482	\$3,593,756.84	\$43.57
<b>Annual</b>	<b>789,371</b>	<b>\$34,837,747.23</b>	<b>\$43.24</b>

\* Does not include Transmission

## 2009 Integrated Resource Planning Actual Data Filing

### R14-2-703 B.) Supply-side Data

2.) For the power supply system for the previous calendar year

f.) Interchange purchase & sale prices

#### 2009 Interchange Sales

Month	MWh	Amount - \$	\$/MWh
January	79,467	\$3,765,322	\$47.38
February	58,852	\$3,254,571	\$55.30
March	48,214	\$3,044,767	\$63.15
April	24,627	\$2,320,173	\$94.21
May	40,995	\$2,963,864	\$72.30
June	39,727	\$2,898,363	\$72.96
July	58,263	\$4,037,002	\$69.29
August	49,035	\$3,315,464	\$67.61
September	30,617	\$2,680,069	\$87.54
October	48,537	\$3,181,179	\$65.54
November	34,250	\$3,028,942	\$88.44
December	59,893	\$3,830,626	\$63.96
<b>Annual</b>	<b>572,476</b>	<b>\$38,320,342</b>	<b>\$847.68</b>

\* Monthly amounts have been normalized for prior period adjustments

## 2009 Integrated Resource Planning Actual Data Filing

### R14-2-703 B.) Supply-side Data

2.) For the power supply system for the previous calendar year

g.) Energy losses

#### 2009 Energy Losses

Month	MWh	Percent
January	7,023.36	2.73%
February	5,956.50	2.73%
March	6,705.25	3.15%
April	12,019.29	6.15%
May	7,731.13	3.13%
June	10,188.60	4.32%
July	8,246.73	2.70%
August	12,875.15	4.36%
September	9,527.14	3.96%
October	1,349.00	0.60%
November	11,857.29	5.88%
December	-6,022.13	-2.45%
<b>Annual</b>	<b>87,457.32</b>	<b>3.04%</b>

## 2009 Integrated Resource Planning Actual Data Filing

### R14-2-703 B.) Supply-side Data

- 3.) The level of cogeneration and other forms of self-generation in the utility's service area for the previous calendar year.
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Chemstar has 2.3 MW of generation in Mohave Electric Cooperative's service area, which is started upon notification from AEPCO that a peak load condition is about to occur. Eurofresh, Inc. has a self-generation unit in Sulphur Springs Valley Electric Cooperative's service area.

The Phelps Dodge Corporation has installed capacity of 135,964 kW at its Morenci location. Of this, approximately 60 MW is considered readily available. This generation is *normally only run* when the cost of non-firm energy is higher than Phelps Dodge's cost of generation, when non-firm energy is unavailable, or when substation problems limit their import capability.

There may be additional self-generation or cogeneration in the service area of which AEPCO is not aware.

**2009 Integrated Resource Planning Actual Data Filing**

**R14-2-703 B.) Supply-side Data**

- 4.) As available, a description and map of the utility's transmission system, including the capacity of each segment of the transmission system.
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AEPCO has divested itself of all transmission assets. Southwest Transmission Cooperative, Inc. and other third party contractors serve our transmission needs. Southwest Transmission, as a courtesy, provided the transmission line diagrams.